

J McQUAID JESUIT

COURSE DESCRIPTION BOOK

2023 - 2024



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2023-2024 COURSE SELECTION PROCESS

Here is an outline of the steps you need to complete in choosing your courses for next year.

1. Read the policies described on the next page to understand requirements.
2. Review the course descriptions in this booklet and discuss your different options with your parents and subject teachers.
3. At the end of January, students' current teachers will recommend courses for the next school year. Students will be able to view these recommendations in onCampus. Then, students will meet individually with counselors in February to finalize course selections for the upcoming year.
4. Once all courses have been selected, the course approval process begins. At the conclusion of this process, parents will receive a letter in the mail indicating which courses their son has selected and received approval for the 2023-2024 school year.
5. Once courses have been approved and parents and students are notified of the course approvals for the 2023-2024 school year in late March, students will have one week to appeal departmental decisions and/or switch electives. Any student doing so must meet with his counselor and submit a "Course Request Change Form" to make any necessary changes to next year's course selections. Any such changes will require approval and signatures from parents, counselors, department chairpersons, the Dean of Academics, and teachers of specific courses depending on the courses involved. Requests for course changes are not permitted after this until the last week of August. Finally, no course changes are permitted after the first cycle of classes in September.

DEPARTMENT CHAIRS

Computer Science | Mr. Scott Simkins
English | Mr. Daniel Gorton
Fine Arts | Mr. Kevin Karnisky
Foreign Language | Ms. Susan Hickman
Mathematics | Mrs. Kristi Mabelis
Physical Education | Mr. Brian Sprague
Science | Mr. Paul Guadagna
Social Studies | Mr. James Purtell
Theology | Mr. Andrew Hoelperl

POLICIES ON ACADEMICS

The high school credits required for graduation are as follows:

Subject	Credits	Subject	Credits
English	4	Foreign Language	3*
Lab Science	3	Mathematics	3
Fine Arts	1	Social Studies	4
Physical Education	2**	Theology	4
Electives	6	Health**	½

*Three credits of the same language are required for graduation.

**Students take a half-credit course in Physical Education each year. Sophomores take a combined Health/Physical Education course that earns them a full credit.

Students must take a full schedule of courses each year and must pass all courses, required and elective, to be eligible for promotion or graduation. Students enrolled in three or more Advanced Placement courses may forgo a full elective credit and substitute an open period in their schedules. At the school's discretion, some students may be enrolled in a resource/academic intervention period in place of their elective credit.

The limit on Advanced Placement course enrollment for any student is three. Any student wishing to enroll in four or more AP courses must obtain permission from their parent or guardian, counselor, and the Dean of Academics. The counselor and Dean of Academics will employ a holistic approach to any such approval, considering factors that include past academic performance, scores on previous standardized/AP testing, and level of extra-curricular involvement.

Certain courses have prerequisites (usually a minimum grade in that subject and approval of the department). Advanced Placement courses may have additional prerequisites.

Some course requests may not be able to be honored due to over-subscription, course cancellation or course conflicts.

Please note that requests for specific teachers cannot be honored.

In order to graduate or to be promoted to the next grade level, a student must successfully complete all his courses by earning a passing grade for each course within the designated time limits. Since McQuaid Jesuit does not allow a student to repeat any course in the next academic year, remediation of a failure must be made prior to the start of the next fall semester. McQuaid also does not allow a student to repeat an entire year at McQuaid.

COMPUTER SCIENCE DEPARTMENT

All of the department's offerings are elective courses. With few exceptions, learners may enroll in any course without the need to take prerequisite classes. In some sense, the material covered in many classes is complementary. For example, digital images are often found on web pages so it may make sense to enroll in classes covering these topics sometime during your studies at McQuaid Jesuit. The point is that the department offers students greater flexibility to learn the things that they want. Within this freedom lies a danger that you will bypass the need to excel at the simple things like word processing, spreadsheets and making presentations. In our opinion, all high school graduates should know how to do these things well.

The department offers versatility in its courses. Students can explore the disciplines of computer science through its programming classes including the emerging discipline of game programming. They can also explore complementary courses in web authoring and digital arts. Finally, students can refresh or master the important basics of calculating and graphing using spreadsheets, designing and using databases or simply word processing. Many fascinating areas in the world of computing are made available by our department for your discovery.

Since the beginning of the 2015-2016 school year, McQuaid Jesuit has offered an engineering opportunity through Project Lead the Way®. The following PLTW pre-engineering courses are listed in this department: Introduction to Engineering Design, and AP Computer Science Principles. Students enrolled in these courses may earn college credit at the Rochester Institute of Technology (RIT) through a PLTW end-of-course assessment or AP exam respectively. A full description of PLTW can be found in the Special Programs section on page 31.

Students are expected to purchase textbooks for some computer science department courses.

Animations

This course teaches students how to make stand-alone and Web animations using Animate. Students will create animations, navigation buttons, and interactive menus. During this course, students will progress from creating simple animations to developing sophisticated presentations and movies. Students with a strong work ethic and problem-solving skills and the ability to understand and follow directions will excel in this course. Besides preparation for unit tests, this course requires very little homework for subject mastery. Since many animations are embedded within Web pages, this course's subject material is complementary to concepts taught in the Web Publishing course. Textbook provided.

Intended for: Students in Grades 8, 9, 10, 11, 12

Credit: 1/2

Prerequisites: None

Architectural Design and Drafting

The focus of this ½-credit class is learning the fundamentals of AutoCAD software. AutoCAD is the industry standard program for computer-aided drafting (CAD). Students will master concepts and techniques for computer aided, 2-dimensional design and drafting. Since the course will primarily use examples and projects such as floor plans, elevations, lots, etc., students will gain knowledge concerning principles and concepts of architecture. Students will also be introduced to 3-dimensional design concepts.

Intended for: Students in Grades 8, 9, 10, 11, 12

Credit: 1/2

Prerequisite: None

Computer Game Design

Have you always wanted to learn how to make computer games? Well, this course teaches you how to do just that! Students will design, code, and test a number of different types of games (including text adventure, board, two player, space, 2D shooter, and 3D shooter) in a number of different platforms (including QBasic, Visual Basic and XNA Game Studio Express). Students will also have the opportunity to design and create their own games. Games will be created for the Windows environment. Additionally, the games created with XNA can be loaded and played on the Xbox 360 gaming system. The ability to work independently, persistence, and strong problem-solving, logic, and attention to detail skills will help students to be more successful.

Intended for: Students in Grades 10, 11, 12, and 9th Graders who have completed Algebra **Credit:** 1

Prerequisite: Algebra

Advanced Placement Computer Science

A continuation of our basic-level programming class, this course prepares students for the AP Computer Science exam. Students will design, develop and analyze solutions to problems, use common algorithms and data structures as they write programs within an object oriented framework. In specific, they will write, run, test and debug programs using standard Java library classes. This course is the next logical step toward expressing a deeper interest in a computer or related STEM (Science, Technology, Engineering or Math) career. In accordance with McQuaid Jesuit policy, all students enrolled in an AP course must take the respective AP Exam in May.

Intended for: Students in Grades 10, 11, 12

Credit: 1

Prerequisites: Final average of 85 or higher in Introduction to Java Programming, AP Computer Science Principles, or Computer Game Design. Completion of, or enrollment in, Algebra II/Trigonometry. A demonstration of general academic competence particularly in the math and science areas.

AP Computer Science Principles

This is a joint College Board/Project Lead the Way® certified course. It is a hands-on, project based, technology enriched course which concludes with taking the AP Computer Science Principles exam. The course is designed as an introductory college-level computer course with emphasis on using engineering design and problem solving methods to create computer applications. The course does not seek to teach mastery of a single programming language but intends instead to develop computational thinking, to generate excitement about the field of computing, and to introduce computational tools that foster creativity. In the course, students will explore tools such as excel, Python, and NetLogo modeling software to gain a broad experience with computers. Building enthusiasm for rigorous computer science is a goal of the course, but providing students a solid foundation for use in all disciplines is the most desired outcome. Students must take the AP exam in May.

Intended for: Students in Grades 9, 10, 11, 12

Credit: 1

Prerequisite: Completion of, or enrollment in, Algebra II/Trigonometry

Digital Video Editing

This course introduces students to producing digital video including finding stories, writing scripts, shooting and editing video, and making deadlines. Upon covering the basics, students will have opportunities to create video for the school website, film festival entry, e-newsletters and other media. At the conclusion of the course, students will be proficient in using Adobe Premiere video editing software, preparing stories/scripts/shot lists, as well as shooting and producing visual stories. It is a good course selection for those interested in related careers or students who prefer an active, hands-on approach to learning. Enrollment limited.

Intended for: Students in Grades 10, 11, 12

Credit: 1

Prerequisite: Completion of Image Editing with Adobe Photoshop, Animations, or department approval.

Image Editing with Adobe Photoshop

Learning to create and manipulate images using Adobe Photoshop is the focus of this course. Students modify existing images as well as create original work using multiple rendering tools. Students will also learn how to edit, retouch, and enhance photographic digital images. This course utilizes a “learning through hands-on lab work” approach, which requires a student to possess good work habits, direction following and persistence, but requires very little outside of class work in order to achieve subject mastery. Material covered in this course is complementary to the animations, and Web Publishing courses offered by the department. Textbook provided.

Intended for: Students in Grades 8, 9, 10, 11, 12

Credit: 1/2

Prerequisites: None

Introduction to Programming

This course introduces complete beginners to coding using a variety of programming languages. The typical class day features a presentation on a general topic followed by lab work ranging from creating basic programs to design of more sophisticated games and projects. Students will encounter a bit of homework although assessment is typically based on shorter quizzes. There are no midterm or final exams, however, there are two major independent projects during the year. The course is a great starting point for students who want to experience what it is like to program and who recognize that they will likely be taking at least one similar course in college. This class serves as the best prerequisite to AP Computer Science. Text book is provided.

Intended for: Students in Grades 9, 10, 11, 12

Credit: 1

Prerequisites: None

Technology/Engineering Seminar

This hands-on, project-based, technology and engineering enriched course’s goal is to give you a good dose of the “T” and “E” of STEM. You are cruelly forced to take a lot of “S” courses. Similarly, most of you will have 4 or more years of “M” courses. So, here, you will be rounding out your STEM education in case you unwisely choose not to sign up for any more technology or engineering courses while you are here at McQuaid. The seminar will likely include the following topics: iPad essentials, PC essentials, school computer network and printing, Google Drive, Schoology essentials, digital citizenship concerns, etiquette, and expectations at McQ and in the world, communicating and presenting effectively, engineering design process including an egg drop competition, engineering software use including Autodesk Inventor and 3D printing, and computer programming culminating in drone missions.

Intended for: Students in Grade 9

Credit: 1/2

Prerequisites: None

Web Publishing

This half-credit course provides students with an opportunity to learn more about how the Internet works and the field of web publishing. Topics include creating HTML documents and CSS stylesheets, embedding images and media with webpages and using JavaScript to enhance web content. It is taught with a hands-on, active learning approach as students create both structured and original content. As a lab course, it requires minimal out-of-class work with the exception of occasional unit test preparation. This is a smart, sensible elective for a student who wants to explore the dynamic world of web publishing. Textbook provided.

Intended for: Students in Grades 8, 9, 10, 11, 12

Credit: 1/2

Prerequisites: None

ENGLISH DEPARTMENT

The English curriculum at McQuaid Jesuit is based on the skills of reading, writing, speaking and critical thinking. Literature is the basis for building these skills. As important as what we read, what we write, and what we speak is *how* we read, *how* we write, and *how* we speak. We must read critically, analytically; we must write clearly and concisely; we must speak clearly and confidently. Critical thinking is the tool needed for each of these skills. We do not teach *what* to think, so much as *how* to think. Students' arguments must be based on facts, evidence and logic. They must search for the truth. McQuaid Jesuit students read approximately 10 books a year. Students are tested on each book, which then becomes a source for discussion, speaking and writing. The short story, poetry and drama are studied each year. Testing in all its forms is carried out throughout the four marking periods, with grade levels determining major assessment experiences.

McQuaid Jesuit students write 20-25 essays per year. Writing is both creative and expository. A focus of all years is writing thesis statements and developing papers from these statements. Research papers begin in the ninth grade. The final paper for each year is a thesis paper based on discoveries each student has made from his study of literature that year. Speaking at McQuaid Jesuit includes class discussion, the public reading of stories, poems and the student's own written work, participation in plays and skits, and some formal speaking. There is a unit of Public Speaking in the English 4 curriculum. The ideal McQuaid Jesuit graduate is a young man who reads, can think on his feet, and can express himself clearly and concisely in both the spoken and written word.

English 1

Instruction in the first semester focuses on developing the student's reading and writing skills utilizing the short story and novels. Grammar, usage and mechanics are taught based on the needs illustrated in the student's writing. Student's progress is assessed at the mid-term with an expository paper that replaces an examination. The paper is based on themes discussed in the novels and short stories covered throughout the semester. The second semester begins with poetry and a Shakespearean drama and continues to work on grammar/usage needs. A number of short papers are written and discussed and a final thesis paper, based on several literary works, replaces a June examination. The final unit of the year returns to drama. Vocabulary assignments and tests are given throughout the year as are the tests on assigned novels.

Intended for: Students in Grade 9

Credit: 1

Prerequisites: None

English 2

This course begins with a review of the grammar skills learned in English I. Creative writing pieces are assigned to practice these skills. A focus on the study of the short story follows. Concurrent writing assignments feature the expository paragraph and its components. The second semester is devoted to grammar, the thesis statement in exposition, poetry and connotative language, a Shakespearean play, writing essays and writing a term paper based on novels read at two- to three-week intervals during the year. Vocabulary assignments are also given regularly throughout the marking periods.

Intended for: Students in Grade 10

Credit: 1

Prerequisite: English 1

English 2 Advanced

This course is a more intensive version of the English 2 course and is intended as preparation for the junior and/or senior year courses and their associated Advanced Placement examinations. There are extensive assignments in composition and literature. Qualified students should indicate their interest on the Course Request Form.

Intended for: Students in Grade 10

Credit: 1

Prerequisite: Final average of 90 or higher in English 1 and recommendation of the English 1 instructor.

English 3

This course is a study in American literature from 1854 to the present. The course of study includes a more analytical and thorough study of the short story, the novel, the study of Shakespeare's *Macbeth*, and poetry. Writing is an integral part of each marking period with several written assessments from the paragraph to the essay the main avenues of expression. Oral presentation, small group experiences, too, assist the student in increasing his reading, writing, and oral skills. Students also study vocabulary as part of their junior year English experience and are expected to utilize vocabulary in their written and oral assessments. The end of the year assignment is a research paper, a persuasive argument, with textural support, that is well-documented with in-text citation, use of the interview, and a Works Cited page. The latter portion of the fourth marking period is dedicated to mastering the components of a research paper. This assignment serves as the final exam for the course. In January, students are tested on vocabulary, command of literary analysis, and an essay on one of the seven rhetorical methods taught during the first semester.

Intended for: Students in Grade 11

Credit: 1

Prerequisite: English 2 or English 2 Advanced

Advanced Placement English Language and Composition

This is an intensive college-level course in the study of rhetoric, analytical reading, critical analysis writing, and synthesis writing. The course prepares students for the AP examination, which students are required to take as part of this course, in May. Students who earn high scores on this exam may qualify for college credit or advanced standing in college courses. Students will analyze a challenging range of nonfiction prose as well as classical literature, emphasizing the authors' use of rhetorical devices and language manipulation. Through close reading and frequent writing, students enhance their ability to recognize rhetorical strategies and to identify purpose and principles of language. Complementing the theme of junior year English courses, students will analyze what it means to be an American in a global environment. In accordance with McQuaid Jesuit policy, all students enrolled in an AP course must take the respective AP Exam in May.

Intended for: Students in Grade 11

Credit: 1

Prerequisite: Final average of 85 or higher in English 2 Advanced or final average of 90 or higher in English 2 with recommendation of the English 2 instructor.

English 4

This course critically examines the short story, poetry, the novel, and Shakespearean and other plays from a thematic perspective. There are several major thesis assignments of a critical and analytical nature for students to demonstrate accumulated knowledge and experience with written expression. Public Speaking is an integral part of English IV, Trimester 2, as is a cumulative essay, assessing four years of thought and expression, at year's end. A study of three hundred vocabulary words (Shostak, Level H) is an important component of the curriculum.

Intended for: Students in Grade 12

Credit: 1

Prerequisites: English 3 or AP English Language and Composition

Journalism and Media Literacy

This elective course will provide students an authentic opportunity to experience the journalistic process as they are trained in the fundamentals of journalistic ethics, news gathering, fact checking, interviewing techniques, and journalistic writing style. A primary focus of the course will be on the transformation that journalism has undergone in the digital age. To this end, students will learn to vet the credibility of online sources while deciphering straight news from slant and balanced coverage from bias. Students in this course will serve as the primary staff writers for McQuaid Jesuit's student newspaper, The Lance.

Intended for: Students in Grades 9, 10, 11, 12

Credit: 1

Prerequisites: None

Advanced Placement English Literature and Composition

AP Literature and Composition is an intensive college-level course in the study of literature and in the writing of critical expository essays. It prepares the student for the CEEB (College Entrance Examination Board) AP Examination in May, which students must take to receive credit for the course. College credit or advanced standing can be earned by a strong score on this examination. Candidates for this course should have solid skills in grammar, mechanics, organization, development, and research methodology for the varied writing experiences the course demands. In addition, candidates must possess a solid vocabulary in order to handle the higher levels of reading the course offers. The course demands careful attention to literary conventions, terms, and genres. Analytical thinking, critical reasoning, and commensurate written expression are strengthened and improved through varied, continual, and challenging reading and writing assignments. In accordance with McQuaid Jesuit policy, all students enrolled in an AP course must take the respective AP Exam in May.

Intended for: Students in Grade 12

Credit: 1

Prerequisites: Final average of 85 or higher in AP English Language and Composition or final average of 90 or higher in English 3 with recommendation of the English 3 instructor.

Please Note: If the number of students recommended for an advanced or AP class exceeds the class-size limit of 25, a qualifying examination may be administered.

FINE ARTS DEPARTMENT

Visual Arts

Intro to Art

Intro to Art: This course is an introductory Visual Arts course. It is an overview and introduction to basic concepts, skills and a variety of media. Students are introduced to Drawing, Design, Painting and Sculpture. This course fulfills a student's Fine Arts requirement. It is advisable that a student interested in Visual Art take Intro to Art as early as possible, as it is a prerequisite for all upper level Visual Art courses.

Intended for: Students in Grades 9, 10, 11, 12

Credit: 1

Prerequisites: None

Intermediate Art

This course follows Intro to Art. Students further develop concepts and skills learned in Intro to Art by completing a variety of Drawing, Painting and other 2-Dimensional works of Art. Students will use a variety of familiar and new materials.

Intended for: Students in Grades 10, 11, 12

Credit: 1

Prerequisites: Intro to Art

Advanced Art

This course follows Intermediate Art. It continues the refinement and growth of the concepts and skills developed in Intro to Art and Intermediate Art. Students will have more opportunities to create artwork independently and develop their voice as an artist.

Intended for: Students in Grades 11, 12

Credit: 1

Prerequisites: Intro to Art and one additional Visual Arts credit

Beginning Sculpture

This beginning studio course includes the study of Sculpture through the utilization of materials such as wood, ceramics, plaster, and wire. Students explore the aesthetics of Sculpture through the elements and principles of three-dimensional design.

Intended for: Students in Grades 10, 11, 12

Credit: 1

Prerequisites: Intro to Art

Advanced Sculpture

This is an advanced, full-year course. Coursework will be self-directed, with students and the teacher determining a course of work for the year. Student projects develop as a cohesive body of work.

Intended for: Students in Grades 11, 12

Credit: 1

Prerequisites: Intro to Art and Beginning Sculpture

Graphic Design using Adobe Creative Cloud & More

Using Adobe CC desktop and mobile apps students will be creating designs for real world applications within a creative, explorative environment. Learning to integrate traditional and digital image making techniques from handmade to using the Adobe CC apps and services, such as Illustrator, Photoshop, AfterEffects and InDesign, students will work through projects from design briefs to completion. Additional apps for the iPad like uMake, Procreate, VectoratorX and Blender are also explored. The skills and ideas covered in this course are invaluable to students considering a career in advertising, fine art, design, illustration, print or web media, motion graphics, animation or other media related arts, or those seeking to explore interests in these disciplines. The work is produced within the computer lab and studio and requires very little outside of class time to achieve subject mastery.

Intended for: Students in Grades 12

Credit: 1

Prerequisite: Intro to Art

Film and Media Studies

This course covers two distinct but related content areas: film and media. In the first semester, students will learn about "new media" and in particular, video games, web-based content and digital video. We will examine how these technologies are used to distribute advertising, promote ideology and affect the human experience via media consumption. Lectures are mainly electronic in format and coursework includes research, experiments, creative arts and developing digital content. The second part of the course addresses the history of cinema arts from the late 19th century until the present. Topics include the evolution of technology, genre study and auteur theory. Classes will be divided among screenings and discussions with a strong online and in-class participation component as well as creative production assignments, as students view films through several analytical lenses.

Intended for: Students in Grades 10, 11, 12

Credit: 1

Prerequisites: Intro to Art

Classroom Music

Introduction to Guitar, Keyboard, and Music Theory

The class is intended for the student with no musical experience. Basic guitar and keyboard playing techniques will be taught and applied in this class, as well as an introduction to basic music theory and reading. Students will be able to read music and perform at a basic level after completing this course. There is a playing and written component for the mid-term and final.

Intended for: Students in Grades 9, 10, 11

Credit: 1

Prerequisites: None

Guitar and Keyboard II

This course is intended for the student who has some musical experience. More advanced playing techniques will be taught. We will perform individually and in groups. There will be a continuation of more advanced music theory as well as a listening component. Students will be able to read music and perform at an intermediate level after completing the course. This class will have performance opportunities outside of McQuaid. There are playing and written components for the midterm and final exams.

Intended for: Students in Grades 10, 11, 12

Credit: 1

Prerequisite: Applied Musicianship or department approval

Advanced Placement Music Theory

This course is intended to further develop the musical skills of students past the beginner level to an advanced level of musical understanding. Through a study of form, harmonic progression, and other theoretical aspects of music, students gain an understanding of the complexity of music and its aesthetic value in society. The level of musical study is that of first semester college theory. Students need department approval to enroll in this class. In accordance with McQuaid Jesuit policy, all students enrolled in an AP course must take the respective AP Exam in May.

Intended for: Students in Grades 11, 12

Credit: 1

Prerequisites: Symphonic Band (2 yrs), or High School Chorus (2 yrs), or Guitar & Keyboard II, or dept. approval

Performing Ensembles

Beginning Ensemble

This ensemble is for any student interested in learning to play an instrument or is still a beginning instrumentalist. Students will learn fundamental skills in playing an instrument for band. Students will perform music in a variety of styles. Instrumental lessons taken either privately or at McQuaid are required for this course.

Intended for: Students at a beginner instrumental playing level

Credit: 1

Prerequisites: Instructor placement evaluation or department approval

Chorus

Chorus will perform a variety of literature throughout the year. Students will learn to use their voices with a foundation in classical vocal technique. Lessons at McQuaid, or privately, are an integral part of the ensemble. All students wishing to enroll in this ensemble must demonstrate the ability to match pitch. Evaluations both individually and as an ensemble will take place throughout each grading period.

Intended for: Students in grades 9, 10, 11, 12

Credit: 1

Prerequisite: Instructor placement evaluation or department approval

Concert Band

The Concert Band is open to all student musicians at an intermediate level playing woodwind, brass, or percussion instruments only. Students playing guitar or piano may be interested in General Music or Middle School Chorus. This course will cover wide arrangements of musical styles and genres that will be challenging to the level of the students. Instrumental lessons taken either privately or at McQuaid are required for completion of this course. Students will perform frequently throughout the year in school and community settings.

Intended for: Students at an intermediate performance level

Credit: 1

Prerequisites: Instructor placement evaluation or department approval

Orchestra

This course is a full credit class and seeks to develop technical proficiency, musicianship, and musical leadership through the performance of string orchestra repertoire. Students will perform orchestral repertoire frequently throughout the year in school and community settings. Individual lessons taken either privately or at McQuaid are required for completion of this course. Orchestra is open to musicians playing violin, viola, cello, and upright bass (not electric bass).

Intended for: Students in grades 6, 7, 8, 9, 10, 11, 12

Credit: 1

Prerequisite: Ability to play a string instrument (violin, viola, cello, string bass)

Percussion Ensemble

This course meets every day for a full year. A wide arrangement of musical styles and genres for percussion ensembles will be explored in this course. Instrumental lessons taken either at McQuaid Jesuit or privately are required for completion of this course. Students will perform frequently throughout the year in school and community settings.

Intended for: Students in Grades 7, 8, 9, 10, 11, 12

Credit: 1

Prerequisites: Instructor placement evaluation or department approval

Symphonic Band

This course meets every day for a full year and is open to musicians playing at an intermediate to advanced level of performance. Only woodwind, brass, or percussion instruments are included in this ensemble. Students playing guitar or piano may be interested in taking Applied Musicianship, High School Chorus, or Accompanying. This course will cover a wide arrangement of musical styles and genres that will be challenging to the level of the students. Instrumental lessons taken either privately or at McQuaid Jesuit are required for this course. Students will perform frequently throughout the year in school and community settings.

Intended for: Students at an intermediate to advanced performance level

Credit: 1

Prerequisites: Instructor placement evaluation or department approval

Drama Classes

Theatre Tech

The course will explore where theatre has come from and where might theatre be in the future. Students will study various production elements; including technical aspects, acting, management, as well as a look at periods in theatre history which better explain the development of the technical elements of the theatre. Projects include acting, scene design, sound and lighting design. Students in this class will be required to be part of the stage crew for one of the two McQuaid main stage productions.

Intended for: Students in Grades 9, 10, 11, 12

Credit: 1

Prerequisites: None

Theatre Tech II

Students will study various production elements, including stage management and advanced lighting. Projects include acting, scene design, sound, and lighting design. Students in this class will be required to be part of the stage crew for one of the two McQuaid main stage productions.

Intended for: Students in Grades 10, 11, 12

Credit: 1

Prerequisites: Theatre Tech

FOREIGN LANGUAGE DEPARTMENT

Modern Languages: French, German, Italian, and Spanish

Foreign Language Level 1

Level I modern foreign language begins the comprehensive study of the target language. Students will attain an acceptable degree of proficiency in the four skill areas of listening, speaking, reading and writing through the emphasis of active communication. Vocabulary and grammatical structures are presented in dialogues, readings and practiced in oral and written drills. These are chosen for their usefulness in everyday conversation, while dialogues prepare students to communicate topics of interest to them. Readings include cultural information to give students an understanding and appreciation of the contemporary world of the target language. English is used for grammatical explanations, but the target language is utilized as much as possible. Students are tested using a variety of techniques. Please Note: German 1 will no longer be offered as of 2023-2024.

Intended for: Students in Grades 8, 9, 10, 11, 12

Credit: 1

Prerequisites: None

Foreign Language Level 2

Using the basic vocabulary learned in Level I, this course emphasizes vocabulary development, more complex grammatical structures and idiomatic usage. Much of the classroom time is spent on the assimilation and oral transposition of newly acquired structures. Emphasis remains on the development of communicative skills, specifically the ability to understand, to speak in correct idiomatic usage of the target language, to read and to write. It is structurally more demanding in that it presents various tenses and more complicated grammatical constructions.

Intended for: Students in Grades 8, 9, 10, 11, 12

Credit: 1

Prerequisites: Successful completion of Level 1 or McQuaid's Placement Exam

Foreign Language Level 3

This course builds upon the first two years of study and emphasizes the ability to comprehend and to relate details of various topics in the target language, both orally and in writing. Commonly useful vocabulary, language structures, culture and reading skills are also included. Authentic materials are used as a springboard for discussing current events, prices, cultural items, etc. and as a tool in the composition-writing process. The course brings students from the novice level of oral proficiency to the intermediate level where they can create with the language, participate in progressively more challenging conversations and communicate successfully in basic survival situations. The course is supplemented with target-language films and realia. Evaluations may include vocabulary and structure quizzes, dictations, speaking tests, as well as vocabulary and structure tests given during and at the end of each unit.

Intended for: Students in Grades 9, 10, 11, 12

Credit: 1

Prerequisites: Successful completion of Level 2 or McQuaid's Placement Exam

Foreign Language Level 4 or Level 5

This is a course in advanced idiomatic study in written and spoken language as well as an introduction to literary style. It includes conversational practice on given topics, a variety of literary works in several genres, expository writing, listening comprehension of contemporary programs from the mass media and vocabulary expansion. Language structures are introduced and reviewed as needed. Various works are studied for literary style and philosophical content. Discussion and criticism of all texts are the core of class work which will be in seminar form. This course is recommended to students who have excellent achievement in Level III or who have had substantial outside experience with the spoken language. Students enrolled in Italian 4 may have the opportunity to earn dual credit with Nazareth College for an additional fee. (NOTE: This course/level will be scheduled if a sufficient number of students enroll and staffing requirements are met.)

Intended for: Students in Grades 9, 10, 11, 12

Credit: 1

Prerequisites: Final average of 85 or higher in Level 3 course and department approval

Advanced Placement Foreign Language

This course is designed to prepare students for the Advanced Placement Language and Culture Exam. This course emphasizes communication – both understanding and being understood by others. Students will learn vocabulary from a variety of sources that address all six themes of the exam. Students will practice the reading, writing, listening, and speaking components of the exam on a weekly basis. Students are expected to speak only Spanish in class. This course is recommended for students who feel comfortable in the language. There is a summer project designed to help students prepare for the cultural aspects of the exam. In accordance with McQuaid Jesuit policy, all students enrolled in an AP course must take the respective AP Exam in May.

Intended for: Students in Grades 10, 11, 12

Credit: 1

Prerequisites: Final average of 90 or higher in Level 4 course and department approval

Classical Languages

Latin 1

This course is designed to develop a concrete foundation in the basics of Latin grammar and vocabulary. Great attention is placed upon a logical analysis of the structure of the language, both for its own sake and also as an aid to general language skills. The skills learned in Latin I are used in English and modern languages. Translations of sentences and paragraphs are included from the very beginning in order to develop reading skills rapidly. The course also includes an introduction to Roman civilization and history. Classical (Roman) pronunciation is used, but Church pronunciation is acceptable.

Intended for: Students in Grades 8, 9, 10, 11, 12

Credit: 1

Prerequisites: None

Latin 2

This course provides further study of the basic skills and understandings acquired in Level I, along with the introduction of more advanced grammatical structures, additional vocabulary and more complex reading passages. The first semester ends our exploration of the basic understandings of Roman civilization; during the second semester, we begin to explore the stories of Perseus and Hercules, as covered in Ritchies' *Fabulae Faciles*.

Intended for: Students in Grades 9, 10, 11, 12

Credit: 1

Prerequisites: Successful completion of Latin 1 or McQuaid's Placement Exam

Latin 3

In the third year of Latin, students review the structures they have already mastered and complete their exploration of Latin grammar through the more advanced structures present in their readings. This year focuses on preparing students to read unabridged, unedited Latin, and as such, it focuses on Latin translations of fairy tales, songs, and other examples of Latin literature from the Middle Ages and Renaissance.

Intended for: Students in Grades 10, 11, 12

Credit: 1

Prerequisites: Successful completion of Latin 2 or McQuaid's Placement Exam

Latin 4

This course is intended to provide students with the necessary background skills to face the AP curriculum, as well as broadening their experience of authentic, unabridged Latin. To that end, students read selections from Cicero's speeches and letters, as well as selected poems from Catullus. During the year, students annotate sections of the text for translation and analysis in class, study the rhetorical and literary devices present in the text, and learn about the cultural and historical context in which each work was produced.

Intended for: Students in Grades 11, 12

Credit: 1

Prerequisites: Successful completion of Latin 3 with a grade of at least 85 and department approval

Advanced Placement Latin

This course gives students the opportunity to work with two of the most renowned works of Latin literature—Caesar’s *The Gallic Wars* and Vergil’s *Aeneid*. Drawing on the skills learned throughout the Latin program, students annotate and translate sections of the text, analyze the grammatical and literary structure of the text, and write essays discussing the themes of each work, sometimes comparing and contrasting between them. In accordance with McQuaid Jesuit policy, all students enrolled in an AP course must take the respective AP Exam in May.

Intended for: Students in Grade 12

Credit: 1

Prerequisites: Final average of 90 or higher in Latin 4 and department approval

MATHEMATICS DEPARTMENT

McQuaid Jesuit students are required to complete three years of Mathematics: Algebra, Geometry and Algebra II/Trigonometry. Class sections are formed according to Mathematics ability levels. All students are expected to relate concepts using knowledge, comprehension and application. In addition, all students will be required to use Analysis and Synthesis in relating concepts as they progress through the department's offerings. The Advanced sections demand higher-level skills beyond memorization, requiring knowledge, comprehension and, especially, application, analysis, synthesis and evaluation. The amount of work, its intensity and difficulty, and the teacher's expectations all increase with each successive ability level.

Placement in the ability groups is based upon performance and the department's recommendations. With department approval, students with sufficient aptitude may accelerate their mathematics course sequence.

Algebra

These courses contain: introduction to algebra; working with real numbers; solving equations and problems; polynomials; factoring polynomials; fractions; applying fractions; introduction to functions; systems of linear equations; inequalities; rational and irrational numbers; quadratic functions.

Intended for: Students in Grade 9

Credit: 1

Prerequisites: Pre-Algebra

Geometry

This course contains a review of algebra; lines and angles; congruent triangles; geometric proofs; parallel lines, angle sums and quadrilaterals; circles; proportions involving line segments and similar triangles; areas of polygons; regular polygons and the circle; inequalities.

Intended for: Students in Grade 10

Credit: 1

Prerequisites: Algebra or Accelerated Algebra 8

Geometry Advanced

This course covers all content areas and skills of Geometry at a greater depth and speed while also including locus; coordinate geometry; constructions; and solid geometry.

Intended for: Students in Grade 10

Credit: 1

Prerequisites: Final average of 92 in Accelerated Algebra 8 or 95 in Algebra with department approval

Algebra II/ Trigonometry

This course contains basic concepts of algebra; inequalities and proof; linear equations and function; products and factors of polynomials; rational expressions; irrational and complex numbers; quadratic equations and functions; variation and polynomial equations; analytic geometry; exponential and logarithmic functions; triangle trigonometry; trigonometric graphs and identities; trigonometric applications. The Texas Instruments TI-83 or TI-84 calculator will be used for the course.

Intended for: Students in Grade 11

Credit: 1

Prerequisites: Geometry or Geometry Advanced

Algebra II/Trigonometry Advanced

This course covers all content areas and skills of Algebra II/Trigonometry at a greater depth and speed while also including sequence, series, and conics. The Texas Instruments TI-83 or TI-84 calculator will be used for the course.

Intended for: Students in Grade 11

Credit: 1

Prerequisites: Geometry Advanced or 95 in Geometry with department approval

College Algebra

This course is designed for the senior who does not intend to take Precalculus. The course requires the relating of concepts mainly on the comprehension, application and analysis levels. The course covers the following topics: algebra review; equations and inequalities; functions and graphs; polynomial and rational functions; exponential and logarithmic functions; topics in analytic geometry; systems of equations; matrices and determinants; sequences and series; probability; statistics. The Texas Instruments TI-83 or TI-84 calculator will be used for the course.

Intended for: Students in Grade 12

Credit: 1

Prerequisites: None

Precalculus

This course prepares students for Calculus by reinforcing and introducing algebraic skills required for success in Calculus. The first part of the course will focus on function, graphing, transformations, higher degree polynomial functions, rational functions, and inverse functions. The next part of the course will focus on the transcendental functions of exponents, logarithms, and trigonometry. Students will learn and apply fundamental identities and the unit circle to a variety of problems, and apply transformations to graph trigonometric functions. Inverse trig functions and applying the laws of cosines and sines will also be covered. Limits will be introduced.

Intended for: Students in Grades 11, 12

Credit: 1

Prerequisites: Final average of 80 or higher in Algebra II/Trigonometry and department approval

Precalculus Advanced

This course is designed for the student who has been in Algebra II/trigonometry and intends to take AP Calculus AB or BC. The student should have a comprehensive understanding of Algebra, Geometry and Algebra II/Trigonometry. The course requires the interrelating of concepts mainly on the application, analysis and synthesis levels. The Introductory Calculus course covers the following topics: polynomial, rational, exponential, logarithmic, and trigonometric functions and their graphs, limits and their properties, an introduction to differentiation and integration of the previously named functions, and the applications of differentiation and integration. The Texas Instruments TI-84 Plus calculator will be used for the course.

Intended for: Students in Grades 11, 12

Credit: 1

Prerequisites: Final average of 90 or higher in Algebra II/Trigonometry and department approval.

Calculus (CC)

This course is designed to prepare the student for a beginning college calculus program and it contains the major concepts of the AP Calculus AB, but not the depth. Students taking this course should take Calculus I in college. The course demands higher-level skills (application, analysis, synthesis and evaluation), a significant amount of work both in class and out of class. (NOTE: This course will be scheduled if a sufficient number of students enroll.) The course includes all concepts of Pre-Calculus, analysis of limits and their properties, explicit and implicit differentiation, applications of differentiation, transcendental functions, and techniques of integration with applications. Students may have the opportunity to earn dual credit with Nazareth College for an additional fee.

Intended for: Students in Grades 11, 12

Credit: 1

Prerequisite: Final average of 85 or higher in Precalculus and department approval

Advanced Placement Calculus AB

It is expected that students taking this course will seek college credit and will take Calculus II in college, if they earned a 3 (qualified), 4 (well qualified) or 5 (extremely well qualified) on the examination. The course demands higher-level skills (application, analysis, synthesis and evaluation), a monumental amount of work both in class and out of class, and substantial amounts of time. The student MUST have a thorough knowledge of college preparatory mathematics, including algebra, axiomatic geometry, trigonometry and analytic geometry (rectangular and polar coordinates, equations and graphs, lines, and conic sections). The course includes all concepts of Precalculus; analysis of limits and their properties, explicit and implicit differentiation, applications of differentiation, transcendental functions, and techniques of integration with applications. The Texas Instruments TI-83 or TI-84 calculator will be used for the course. In accordance with McQuaid Jesuit policy, all students enrolled in an AP course must take the respective AP Exam in May.

Intended for: Students in Grades 11, 12

Credit: 1

Prerequisite: Final average of 85 or higher in Precalculus Advanced or 90 or higher in Precalculus and department approval

Advanced Placement Calculus BC

This course demands higher-level skills (application, analysis, synthesis, and evaluation). Advanced Placement Calculus BC contains all AP Calculus AB topics. Some additional topics are: parametric, polar, and vector functions; slope fields; applications of integrals to physical, social, and economic models; improper integrals; logistic equations; and Taylor series. The Texas Instruments TI-83 or TI-84 calculator will be used for the course. In accordance with McQuaid Jesuit policy, all students enrolled in an AP course must take the respective AP Exam in May.

Intended for: Students in Grades 11, 12

Credit: 1

Prerequisite: Final average of 90 or higher in Precalculus Advanced and department approval

Statistics

This course is designed for the junior or senior who has completed at least three years of math. Statistics will deal in the collection, processing, analysis and interpretation of numerical data. This course contains: frequency distributions and graphs; data description; counting techniques; probability and probability distributions; normal distribution; confidence intervals and sample size; hypothesis testing; testing the difference between means and proportions; correlation and regression; chi-square; the F-test and analysis of variance; nonparametric statistics; sampling and simulation; quality control. The Texas Instruments TI-83 or TI-84 calculator will be used for the course.

Intended for: Students in Grades 11, 12

Credit: 1

Prerequisite: Final average of 80 or higher in any of the following: Algebra II/Trigonometry, Algebra II/Trigonometry Advanced, College Algebra, Precalculus Advanced, or Precalculus and department approval

NOTE: A student may take either Statistics or AP Statistics, but cannot take both courses while at McQuaid.

Advanced Placement Statistics

This course is designed to prepare the student for the Advanced Placement Examination, which each student MUST take in May in order to receive credit for the course. The course concludes with a statistics research project in place of a June examination. Statistics will deal in the collection, processing, analysis and interpretation of data. This course contains: frequency distributions and graphs; data description; counting techniques; probability and probability distributions; normal distribution; confidence intervals and sample size; hypothesis testing; testing the difference between means and proportions; correlation and regression; analysis of variance. The Texas Instruments TI-83 or TI-84 calculator will be used for the course. In accordance with McQuaid Jesuit policy, all students enrolled in an AP course must take the respective AP Exam in May.

Intended for: Students in Grades 11, 12

Credit: 1

Prerequisite: Final average of 85 or higher in Advanced Precalculus, Calculus, or AP Calculus, or 90 or higher in Advanced Algebra II/Trigonometry or Precalculus and department approval

NOTE: A student may take either Statistics or AP Statistics, but cannot take both courses while at McQuaid.

PHYSICAL EDUCATION DEPARTMENT

The Physical Education Program at McQuaid Jesuit consists of two phases. The Core Program is for students in grades 6, 7, 8, 9 and 10 while the Elective Program is for students in grades 11 and 12. In the Core Program, students are taught basic and intermediate-level skills in a variety of seasonal team sports. The Elective Program is centered on individual sports that possess "carry over" value. Each student has the ability to select an activity from a number of different offerings in order to meet his interests.

Incorporated into the Physical Education Program is a portion of the Health curriculum. Health Education is mandated for all 10th graders. 10th grade students meet once a cycle to meet their requirement for health studies. This is done to help fulfill the requirements mandated by New York State.

SCIENCE DEPARTMENT

Three years of high school science (including Biology) taken at McQuaid Jesuit are required for graduation. Elective courses including Chemistry, Physics, Forensic Science, Evolution of Plants and Animals, and Applied Popular Science are available for students in the upper years. Advanced Placement courses in Biology, Chemistry, Environmental Science, Physics and Psychology are taken by those who wish to prepare for the AP Examinations and possible college credit. All science courses include laboratory investigations as well as classroom work. Sustained study is required in these courses in order to grasp the new language of symbols and equations used in science and in order to learn to relate numbers to measurable dimensions in the laboratory. A common thread runs through all the department's courses enabling concepts and skills assimilated in the first courses to be utilized and enlarged upon in the upper-level ones.

McQuaid Jesuit is offering an engineering opportunity through Project Lead the Way® (PLTW). Students completing PLTW courses at McQuaid Jesuit may elect to earn college credit through the Rochester Institute of Technology (RIT). Principles of Engineering, a PLTW course, will be offered through the Science Department and is described in this section. A full description of PLTW can be found in the Special Programs section on page 35.

Biology

This *Biology* course utilizes an inquiry-based approach to teach life science and processes. The emphasis for this class is placed on teaching the students scientific methods, critical thinking, reading for information, and analysis in order to learn biological concepts. Students will take a "learning by doing" approach in the classroom, and will be able to apply the skills learned in this class to future courses, not just in science, but across all disciplines.

Intended for: Students in Grades 9

Credit: 1

Prerequisites: CPS or Environmental Earth Science (2023 only)

Biology Advanced

This course continues the development of the scientific inquiry techniques that have been stressed in the freshman year courses. The *Biology Advanced* course is designed to present students with both the knowledge and the tools necessary to understand science. Every effort is made to teach students how to approach science in the proper way. In addition, mathematical concepts and skills are introduced that demonstrate biology is a quantitative science. The emphasis is on learning processes and approaches rather than pure content. Students are expected to prepare for and perform in laboratory situations, where the interpretation and analysis of laboratory data are expected. This survey of the major areas of biology includes: biochemistry, molecular biology, cell theory, cell physiology, genetics, evolution, reproduction/development, and human physiology. Students develop an insight into the role of living things in the complex world around them at an accelerated pace.

Intended for: Students in Grades 9

Credit: 1

Prerequisites: 80 or higher in CPS Advanced/CPS 8, or 95 or higher in CPS or EES (2023 only), and 95 or higher in Pre-Algebra or completion of Algebra

Chemistry

This course is designed to give the student a thorough background in fundamental chemical concepts. This includes a study of matter and the changes that it undergoes. The course examines both qualitative and quantitative aspects of chemistry, with an emphasis on the latter. Laboratory experiments supplement the classroom lectures with practical applications of theory. This course is highly recommended for any student planning future studies in the sciences. This class is not designed for students expecting to take AP Chemistry or AP Biology.

Intended for: Students in Grades 10, 11

Credit: 1

Prerequisites: Biology or Biology Advanced

Chemistry Advanced

This course is designed to cover Chemistry in greater depth and breadth and at a faster pace than Chemistry. It is designed to prepare students for future AP Science classes, particularly AP Chemistry. It is the third course in the traditional science sequence, following CPS and Biology. In this course, the understanding of the physical nature of the world is developed through a two-pronged approach. Students will look at the topics using a conceptual particulate approach and tackle them with quantitative vigor. They should come to see chemistry as the “central science” as it links together much of what they have seen before and will see in the future. There will be an emphasis on relating molecular structure to the properties of materials and their applications in the “real world”. Numerous chemical demonstrations and laboratory experiments will compliment the classroom material, putting theory into action. Laboratory experiments reinforce basic lab skills and introduce students to new equipment, such as pH meters, conductivity probes and much more. Most importantly, students will learn how to organize data and carry out appropriate analysis and calculations. The level of work is expected to bring the course closer to that of the AP level. A superior work ethic is essential.

Intended for: Students in Grades 10, 11

Credit: 1

Prerequisites: Final average of 88 or higher in Biology Advanced or Biology with department approval

Advanced Placement Biology

Advanced Placement Biology is taught using a comprehensive college textbook and the College Board approved laboratory manual. The emphasis of this course is an extensive survey of all areas of biology. The course is structured around the Four Big Ideas proposed within the AP Biology Curriculum Framework. Students will be asked to utilize their critical thinking skills and problem-solving abilities. This course includes the “Science as a Process” emphasis, which involves understanding how biological concepts are researched. Much of the laboratory experience is student-centered, mirroring the collegiate-level experience. Many of the labs are inquiry-based, stressing experimental design, mathematical reasoning, and interpretation and analysis of collected data. Completion of a summer homework assignment is required as well. In accordance with McQuaid Jesuit policy, all students enrolled in an AP course must take the respective AP Exam in May to receive credit for the course.

Intended for: Students in Grades 11, 12

Credit: 1

Prerequisites: Final average of 90 or higher in Biology Advanced and Chemistry Advanced or 95 or higher in Biology and Chemistry; AP Environmental Science (strongly recommended)

Advanced Placement Chemistry

This course is based on Six “Big Ideas” and new Science Laboratory Practices. The course covers the fundamental principle of Chemistry on a college level giving the student a deeper understanding than the introductory course. The course looks at Chemistry on a more “molecular” level and connects the properties observed in the “real world” with a basis in the molecular world. There is a new focus on critical thinking, problem solving, teamwork and collaboration. The laboratory is based on the collaboration of Laboratory teams which work together to produce a body of experimental work which serve as a basis for discussion and learning. The laboratories utilize a variety of equipment to include pH meters, spectrometers, temperature, pressure, and conductivity probes to name a few, thereby introducing the student to equipment they may see in the future. The laboratory experience mirrors the experience one may have in a University or Corporate research lab. A superior work ethic is essential! In accordance with McQuaid Jesuit policy, all students enrolled in an AP course must take the respective AP Exam in May to receive credit.

Intended for: Students in Grades 11, 12

Credit: 1

Prerequisite: Final average of 93 or higher in Chemistry Advanced and Biology Advanced or final average of 97 or higher in Chemistry with department approval and completion of an additional summer assignment

Advanced Placement Environmental Science

This is an interdisciplinary course providing students with the scientific principles, concepts and methodologies required to understand the interrelationships in the natural world. Students will first investigate ecological and population biology principles in depth. Students will then learn to analyze natural and human-induced environmental problems, to evaluate the relative risks associated with these problems and to examine alternative solutions for resolving and/or preventing them. Field work, experimental design, and problem solving skills are heavily stressed in this course. Projects/field work include designing and building a self-contained living ecosystem, chemical and biological aquatic ecosystem analysis, producing biodiesel fuel from waste oil, designing and building a solar race car, and whitewater rafting in Letchworth Park. In accordance with McQuaid Jesuit policy, all students enrolled in an AP course must take the respective AP Exam in May to receive credit for the course.

Intended for: Students in Grades 11, 12

Credit: 1

Prerequisites/Co-requisites: Concurrent enrollment in Chemistry Advanced or completion of Chemistry and Biology with final averages of 88 in both courses

Introduction to Anatomy and Physiology

This is a demanding, college-preparatory elective science course designed for those interested in science-related fields, especially biology and health careers. This course will provide students an opportunity to explore the intricate and detailed relationship between structure and function in the human body. Topics students will cover include: homeostasis, anatomical structures, cytology, histology, physiological systems and disorders, and medical diagnosis and treatment. Laboratory activities will include microscopic analyses of tissues and a number of dissections, including a cat and other appropriate organs.

Intended for: Students in Grades 11, 12

Credit: 1

Prerequisites: Final average of 95 in Biology Advanced and a 90 in Chemistry Advanced and department approval; Completion of AP Biology (strongly recommended)

Introduction to Forensic Science

Forensic Science is an interdisciplinary science course which incorporates biology, chemistry, physics, mathematics, technology, social studies, and higher level processing skills. The Forensic Science course will explore a number of main topics, including the history of forensics, types of evidence, crime scene processing, hair and fiber analysis, blood spatter analysis, fingerprinting, forensic anthropology, ballistics, and DNA analysis. The course will rely heavily on textbook readings, forensic science journal articles, laboratory exercises, and the utilization of videos.

Intended for: Students in Grades 11 (with department approval), 12

Credit: 1

Prerequisites: Final average of 80 or higher in Biology or department approval, and completion of Chemistry

Physics

This elective course introduces the student to the most basic science - the behavior and structure of matter. Major topics include kinematics, dynamics, circular and planetary motion, momentum, work and energy conservation, thermodynamics, static and circuit electricity, magnetism, waves, optics and nuclear physics. This course is a combination of traditional lecture, teacher demonstrations, inquiry-based labs and concept-supporting labs. Students use Excel or Logger Pro to graph lab results. The course is for seniors and juniors who either have completed Algebra II/Trigonometry or will take Algebra II/Trigonometry concurrently with Physics. Note: If Physics is taken the student may NOT take AP Physics 1 in a future year, however he may take AP Physics 2 if he achieves a 90 or higher.

Intended for: Students in Grades 11, 12

Credit: 1

Prerequisites: Chemistry and final average of 80 or higher in Algebra II/Trigonometry; If the student has not completed Algebra II/Trigonometry, department approval is required

Advanced Placement Physics 1 – Algebra Based

This course has a narrower scope than regular physics, but investigates topics in much more depth. It is designed to be equivalent to a first semester introductory college-level algebra-based physics course. The course is a combination of teacher demonstrations, inquiry-based labs and concept-supporting labs. Students use computers to graph and interpret data and study from a college text, and will work in small groups to complete and in some cases develop labs to prove concepts. Students will record observations and data in a detailed laboratory notebook. Solid mathematical ability is essential, especially trigonometry and solving multiple equations. Topics include Mechanical Physics (kinematics, dynamics, circular and planetary motion, momentum, torque and rotational motion, simple harmonic motion, waves, sound, work and energy conservation) and Electricity (static electricity and simple electric circuits). In accordance with McQuaid Jesuit policy, all students enrolled in an AP course must take the respective AP Exam in May in order to receive course credit.

Intended for: Students in Grades 11, 12

Credit: 1

Prerequisites: AP Physics 1 may be taken without completing a previous course in Physics; Final average of 90 or better in both Chemistry and Algebra II/Trigonometry (or higher-level math); A student that has a 90 in one subject and an 85 in another may still take the courses but only with department approval

Advanced Placement Physics 2 – Algebra Based

This course has a narrower scope than regular physics, but investigates topics in much more depth. It is designed to be equivalent to a second semester introductory college-level algebra-based physics course. The course is a combination of teacher demonstrations, inquiry-based labs and concept-supporting labs. Students use computers to graph and interpret data and study from a college text, and will work in small groups to complete and in some cases develop labs to prove concepts. Students will record observations and data in a detailed laboratory notebook. Solid mathematical ability is essential, especially trigonometry and solving multiple equations. Topics include heat (thermodynamics, ideal gases and kinetic theory), fluids (static and dynamic), electricity (electrostatics, electric fields, forces and potential, electric DC and RC circuits), magnetism and electromagnetic induction, optics (geometric and physical) and modern physics (quantum, atomic and nuclear). In accordance with McQuaid Jesuit policy, all students enrolled in an AP course must take the respective AP Exam in May in order to receive course credit.

Intended for: Students in Grades 11, 12

Credit: 1

Prerequisites: AP Physics 1 or final average of 90 or higher in Physics

Note: Only one Physics course per year is allowed at McQuaid Jesuit.

Applied Popular Science

Applied Popular Science takes an in-depth look at various scientific topics and how they are portrayed in popular culture. The main goal of this course is to critique the scientific references found in popular novels, short stories, television shows, feature films, and documentaries. When applicable we will test the scientific principles in the laboratory to determine if there was an accurate depiction in the pop-culture material. Topics studied in the course will include: The Scientific Method/Scientific reasoning; Nuclear Energy; The Immune System and Disease Transmission; Cancer; Climate Change; and the Chemistry of Acids and Bases.

Intended for: Students in Grades 12

Credit: 1

Prerequisites: None

SOCIAL STUDIES DEPARTMENT

Global Studies I

This is the introductory course to social studies at the high school level. The course focuses on the study of the important dynamics at work in the world today, with the emphasis on the growth and development of those forces or pressures that bring change to the world. We will develop a better understanding and toleration of other cultures. Also, being an introductory course, the focus will be on acquiring skills for the current and future social studies classes. These skills are in the areas of: note taking, reading comprehension, map reading, test taking, and essay writing. To accomplish these goals, we will examine the dynamics of geography, population (hunger, poverty), culture (religion, language, diversity), technology, political systems (power, war, leadership), social systems (family structures, roles), economic systems, environmental issues, human rights (international justice), and apply them to early humans, ancient civilizations, and regions such as: Latin America, China, Japan, Southeast Asia, Africa, and India. Students will study, examine, and express their ideas on these themes by using their acquired skills.

Intended for: Students in Grade 9

Credit: 1

Prerequisites: None

Global Studies II

This course is a humanities-based program in which the major cultural achievements of the West are stressed. The course is chronological in approach. Its goal is to familiarize the student with major Western traditions and institutions as seen through the arts, architecture, literature, economics and politics.

Intended for: Students in Grade 10

Credit: 1

Prerequisite: Global Studies I

Advanced Placement World History

Advanced Placement World History is a full year course offered to sophomores who have an aptitude for history and want to challenge themselves. This course satisfies the Sophomore Social Studies requirement. The general outline of the course follows that prescribed by the College Board to prepare for the A.P. exam in May and future college history courses. The course follows a chronological format from 1200 A.D. to modern times, emphasizing the similarities and changes between regions and societies throughout history.

Intended for: Students in Grade 10

Credit: 1

Prerequisites: Final average of 90 or higher in Global Studies 1 and department approval

American History

This course is an economic, political and social history of American life and institutions. Emphasis is placed upon those historical experiences and developments that have been fundamental in the emergence of the American identity. The course places the American experience in a local and a global context.

Intended for: Students in Grade 11

Credit: 1

Prerequisite: Global Studies 2

Advanced Placement United States History

This course is an introductory college-level course leading to the Advanced Placement Examination, which students must take in order to receive credit for the course. History is studied intensively, with greater attention to both detail and depth. There is a challenging workload of reading and writing assignments. For qualified juniors, AP United States History is an alternative to the regular American History course. In accordance with McQuaid Jesuit policy, all students enrolled in an AP course must take the respective AP Exam in May.

Intended for: Students in Grade 11

Credit: 1

Prerequisites: Final average of 90 or higher in Global Studies 2 and department approval

Economics & Finance*

This is a one-credit full year course that fulfills the senior year social studies requirement. This course examines current issues involving our economic systems. Students will participate in an examination of microeconomics and macroeconomics. Concepts such as supply and demand, elasticity, consumer choices, factor markets, product markets, taxes, international trade, monetary policy, fiscal policy, money and banking will be covered. Additional emphasis will be placed on current events within these fields of study. The personal finance aspect of this course will focus on the topics of investing, budgeting, savings, taxes, credit, and loans. These topics will be related to the students' lives now and in the future. The course will be taught through lectures, group work, class discussion, and guest speakers. Assessments will include papers, quizzes, tests, presentations, projects, and class participation.

Intended for: Students in Grade 12

Credit: 1

Prerequisite: American History or AP United States History

Advanced Placement European History*

This is an introductory college-level course leading to the Advanced Placement Examination, which students must take in order to receive credit for the course. For seniors who qualify, it is offered as an alternative to the Government and Economics course. The course begins in 1450 (High Renaissance). This leads to a detailed study of the Renaissance, the Age of Absolutism, Romanticism, Realism, World War II and post war and contemporary Europe. The course develops a student's oral and written skills as well as his knowledge of European History. In accordance with McQuaid Jesuit policy, all students enrolled in an AP course must take the respective AP Exam in May.

Intended for: Students in Grade 12

Credit: 1

Prerequisites: Final average of 90 or higher in American History or AP United States History and department approval

Government & Leadership*

This is a one-credit full year course that fulfills the senior social studies requirement. The course will explore the United States federal government through the U.S. Constitution and the three branches of government it established. The course will also study state and county government processes, laws, and policies. Students will study basic principles of democracy, political behavior, and the role played by political parties and our government leaders, interest groups, and the media in the political process. Topics will include analysis of elections and a case study of the process by which a government decision is made. The class will use events that are current as examples of the governmental process at work. There will be continuous analysis regarding the traits of good leadership, as well as critical assessment of our elected representatives as leaders. Assessments will include tests, papers, projects and class participation.

Intended for: Students in Grade 12

Credit: 1

Prerequisite: American History or AP United States History

Advanced Placement Macroeconomics and Advanced Placement Microeconomics*

This is a full-year course that is designed to give students a thorough understanding of the principles of economics that apply to an economic system as a whole and to the individual. Macroeconomics deals with the study of national income and price determination and also develops a student's familiarity with economic performance measures (GDP, inflation, unemployment), economic growth and international economics. Microeconomics deals with the study of opportunity costs and trade-offs, production possibilities curves, alternative economic systems, supply and demand, elasticity, consumer choices, costs and revenue, and the role of government in our economy. The course is taught through lectures, group work and class discussions. Assessments will include essays, quizzes and tests. In accordance with McQuaid Jesuit policy, all students enrolled in this course must take BOTH AP Exams in May. For those colleges and universities accepting AP credit, each test is worth 3 credits, for a total of 6 college credits.

Intended for: Students in Grade 12

Credit: 1

Prerequisite: Final average of 90 or higher in American History or AP United States History; Cumulative average of 90 or higher in math courses and department approval

*Seniors can satisfy their social studies requirement by taking Economic & Finance or Government & Leadership or AP European History or AP Macroeconomics & AP Microeconomics.

Social Studies Electives

Current Events & Contemporary Issues

This course has two main dimensions. First, ongoing discussion and analysis of current events will comprise the bulk of class activity. As today's history unfolds, it will be related to previous historical occurrences, ideas, and forces. Students will contrast and compare today's events with their precedents.

The second aspect of this course will be a thorough analysis of how information is obtained in the media age. Print, online, and broadcast sources will be compared throughout the year. Ownership of these sources will be explored. An international perspective will be achieved as students compare domestic media coverage of world events with the coverage provided by media in all other parts of our world. Students will need Internet access on a daily basis for this course, and may be asked to subscribe to news and information sources in place of the usual textbook expenses. Daily monitoring of the news is required.

Intended for: Students in Grade 12

Credit: 1

Prerequisites: None

Advanced Placement Psychology

The AP Psychology course is designed to introduce students to the systematic and scientific study of the behavior and mental processes of human beings and other animals. Students are exposed to the psychological facts, principles, and phenomena associated with each of the major subfields within psychology. They also learn about the ethics and methods psychologists use in their science and practice. In accordance with McQuaid Jesuit policy, all students enrolled in an AP course must take the respective AP Exam in May in order to receive credit for the course.

Intended for: Students in Grades 11, 12

Credit: 1

Prerequisites: Cumulative average of 88 or higher in English; All possible candidates are strongly recommended to meet with the instructor to learn more about the depth and requirements of the course; Department approval is required

THEOLOGY DEPARTMENT

The Theology program at McQuaid Jesuit is a thorough academic program that is an integral part of the goals and objectives of a Jesuit education. It is designed to educate and to form students of all religious backgrounds whose parents wish their sons to be a part of the Jesuit tradition of excellence. It is an essential part of McQuaid Jesuit's formation for all students.

The academic nature of this program distinguishes it from other types of religious formation that take place both in our school and in the individual student's faith community. Those activities are catechetical in nature, i.e., they help to initiate and incorporate a student into a particular faith community. These catechetical experiences complement the academic program at McQuaid Jesuit in a young man's religious formation as a Man for Others.

Theology 1: Introduction to Catholicism

The course aims to provide students with a general knowledge and appreciation of the Roman Catholic Faith through the theological lens of the Creed, liturgy and the Sacraments of the Catholic Church. Special attention is given to Ignatian Prayer, the history of the Jesuits and service to the community through putting students' faith into action.

Intended for: Students in Grade 9

Credit: 1

Prerequisites: None

Theology 2 – Call and Response: God's Revelation and the Response of Faith

Theology II will provide students with a basic introduction to Divine Revelation by means of an overview of Sacred Scripture – both the Hebrew Bible and New Testament. The life, mission and saving death and resurrection of Jesus Christ will be explored as the climax of God's saving self-communication to his people. Faith, considered as our response to God's call, will be addressed on both the individual (personal) and communal (Church) levels. Along the way, students will deepen their growing understanding of and appreciation for Ignatian spirituality and prayer. A selection of traditional and contemporary saints will be studied as models of both faith and service. In accord with the Ignatian dictum to "find God in all things," Theology II will combine more traditional classroom instruction with an intentionally experiential pedagogy. Students will be given the opportunity to design and to participate in a variety of more formal class liturgical experiences (Masses and Penance Services, for example) along with more informal opportunities for prayer and reflection related to and building upon course content and their own personal experience(s).

Intended for: Students in Grade 10

Credit: 1

Prerequisite: Theology 1

Theology 3 – Life in Christ: Sacraments, Morality, and Social Justice

Building upon the foundation set by the first four semesters, this course invites students to explore and reflect upon their experience of Jesus Christ. The first semester focuses on the ritual elements of the Roman Catholic Church and looks closely at the sacraments as privileged encounters with God. Once we experience such privileged encounters we are challenged to live in a particular way: the life of a Christian. The second semester focuses on the moral life, and how the Church invites Christians, indeed all humans, to act both as individuals and as a corporate member of society. Theology 3 encourages the student to perform critical analysis and incorporate personal reflection to become a man for others in the twenty-first century.

Intended for: Students in Grade 11

Credit: 1

Prerequisite: Theology 2

Senior Year Electives

All seniors will take *Senior Theology: Companions of Jesus* during the first semester. During the course selection process, students will be asked to choose their preferred elective courses of the four available for second semester. Both *Senior Theology* and the elective are half-credit courses.

Senior Theology – Companions of Jesus

This course provides a theological and experiential foundation in Ignatian Prayer, consolidated in the *Spiritual Exercises* of St. Ignatius. Emphasis is placed on how the *Exercises* facilitate human development and spiritual maturation in the life of the McQuaid Senior. Since this is best observed through case study, careful analysis of the psychological and spiritual development of St. Ignatius of Loyola will provide a template to understand how the *Exercises* contribute to forming the McQuaid Senior as a Grad at Grad. Coursework integrates theory and praxis of the *Spiritual Exercises* giving students the opportunity to articulate and appreciate his own sacred story in preparation to transition into collegiate life and beyond.

Intended for: Students in Grade 12

Credit: 1/2

Prerequisite: None

Applied Philosophy and Ethics (CC)

We will explore eternal questions philosophers have pondered through the ages: For what purpose was I made? What is reality? What is truth? What is the connection between the Mind and the Body? Does God exist? Do we have Free Will? What is the good life? What is friendship? In the process of attempting to answer these questions, we will familiarize ourselves with Socrates, Plato, Aristotle, Aquinas--among others--and delve into the application of philosophy to various dimensions of life and decision-making. College credit through Nazareth College is available to students in this course.

Intended for: Students in Grade 12

Credit: 1/2

Prerequisite: None

Christian Faiths and World Religions

This course is designed to invite students to learn about other Christian faiths as well as non-Christian religions in greater depth. Drawing upon texts and core writings from various foundational documents we will use appropriate critical techniques and analytical skills in order to compare these various religions to our own personal religious experiences. It is our hope that such an educational experience will invite us into greater understanding and relationship with others so that we can better become men for and with others.

Intended for: Students in Grade 12

Credit: 1/2

Prerequisite: None

Social Justice and Contemporary Issues

As Jesus Christ called his first followers and friends to discipleship, he calls us to the same work in the twenty-first century. We need to continue Christ's mission to the world, especially to the poor and marginalized. This course is intended to be an in-depth study of the Church's Catholic Social Teaching. Drawing from both sacred scripture and sacred tradition we will be looking at contemporary issues such as poverty, sexism, and racism. How are we as Christians called to respond to uphold justice and bring forth the Kingdom of God on Earth as it is in Heaven?

Intended for: Students in Grade 12

Credit: 1/2

Prerequisite: None

ENGINEERING PROGRAM

McQuaid Jesuit offers an array of courses related to the field of engineering, including three courses affiliated with the Project Lead the Way® (PLTW) program in partnership with its New York State higher education affiliate, the Rochester Institute of Technology (RIT). PLTW is a nationally recognized organization dedicated to providing opportunities in Science, Technology, Engineering, and Math (STEM) subjects. The PLTW courses offer students the opportunity to explore engineering as a career option while at the same time earning college credit.

Students enrolled in engineering classes participate in a hands-on, activity oriented program that utilizes team efforts, reinforces their study of math and science, and explores a major career path that, if they wish to continue, will prepare them for further education in the field of engineering.

Currently, McQuaid Jesuit offers three PLTW classes: Introduction to Engineering Design, Principles of Engineering, and Computer Science Principles. Students completing these courses may elect to earn college credit through RIT, or in the case of the Computer Science Principles class, via AP examination. RIT serves as New York State's national affiliate for PLTW.

To earn RIT credit, a student must attain a final course average of at least 85 and successfully pass an end-of-year PLTW examination. A student has until the following November after successful completion of the course to register with RIT for credit.

Engineering Courses

Introduction to Engineering Design

This is a Project Lead the Way® certified course designed to help students discover if a career in engineering meets their interests and abilities. This hands-on, project based, technology enriched course concludes with a PLTW end-of-course examination. The course includes the following units of study: design process, technical sketching and drawing, measurement and statistics, modeling skills, geometry of design, reverse engineering, documentation, advanced computer modeling, design team, and design challenges. This is a project-based course which also includes traditional lecture and teacher demonstrations, and team engineering challenges. Students will complete physical and virtual two-dimensional and three-dimensional models, learn team concepts, complete oral presentations, use spreadsheet and computer aided design (CAD) software to store, manipulate, represent, and analyze data, learn and incorporate engineering design principles, and apply mathematical and scientific methods to guide, test, and evaluate prototypes and solutions. Students successfully completing this course may earn RIT credit. To earn college credit, a student must attain a final course average of at least 85 and successfully pass an end-of-year PLTW examination.

Intended for: Students in Grades 9, 10, 11, 12

Credit: 1

Prerequisites: Each student must have a desktop or laptop computer running Windows 10 OR macOS BigSur 11.0, cpu x86-based 64-bit processor with 4 cores (Windows) OR ARM-based processors with support for Rosetta 2 (Mac), 4GB of RAM memory, DirectX 11 or greater, 3GB of hard drive storage, and 1366 x 768 resolution or higher.

Introduction to MakerSpace

The makerspace philosophy is based in invention, problem-solving, the design/engineering loop, upcycling, repurposing and micro-manufacturing. Students will gain CAD experience within the Autodesk suite, and also gain practice designing on paper, and building rapid prototypes. 3D printing will be one central part of this course, but exposure to woodworking, basic tool usage, electric and programmable circuits, and independent troubleshooting will be regular features. Following Intro to Makerspace, a student should be more fluent in CAD and CAM, but more importantly should keep returning to the STEM Lab throughout their McQuaid career, to safely take advantage of the tools, materials and know-how available to them for projects and skill development. Start your creative journey from design to production in our makerspace.

Intended for: Students in Grades 8, 9

Credit: 1

Prerequisites: None

Principles of Engineering

This is a Project Lead the Way® certified course designed to help students discover if a career in engineering meets their interests and abilities. This hands-on, project based course concludes with a PLTW end-of-course examination. Major topics include Energy and Power (energy applications and mechanisms) Materials and Structures (statics and material testing), Control Systems (machine control, machine design and fluids), and Statics and Dynamics. This is a project-based course which also includes traditional lecture and teacher demonstrations, and team engineering challenges. Students will build gear trains and sprocket systems, and design and control hydraulic and pneumatic devices through software. To earn college credit, a student must attain a final course average of at least 85 and successfully pass an end-of-year PLTW examination.

Intended for: Students in Grades 10, 11, 12

Credit: 1

Prerequisites: The student should have completed or be enrolled in Algebra II/Trigonometry with an average of 80 or higher

AP Computer Science Principles

This is a joint College Board/Project Lead the Way® certified course. It is a hands-on, project based, technology enriched course which concludes with taking the AP Computer Science Principles exam. The course is designed as an introductory college-level computer course with emphasis on using engineering design and problem solving methods to create computer applications. The course does not seek to teach mastery of a single programming language but intends instead to develop computational thinking, to generate excitement about the field of computing, and to introduce computational tools that foster creativity. In the course, students will explore tools such as excel, Python, and NetLogo modeling software to gain a broad experience with computers. Building enthusiasm for rigorous computer science is a goal of the course, but providing students a solid foundation for use in all disciplines is the most desired outcome. Students must take the AP exam in May.

Intended for: Students in Grades 9, 10, 11, 12

Credit: 1

Prerequisite: Completion of, or enrollment in, Algebra II/Trigonometry

Vex Robotics

This half-credit course offered in the fall semester joins together students in small teams to design and construct a competition robot. As a team, students will work on constructing the game field, designing and constructing the robot, programming, and operating/testing robot functionality. Students will be required to participate in a robotics tournament that typically takes place on a weekend (Dec.-Jan. timeframe). This course is designed for students who have always wanted to participate on the robotics team, but could not due to other time commitments. Students will gain experience in building, designing, and block-coding and must have a willingness to be part of a team over a long period of time, with potential work outside of scheduled class time.

Intended for: Students in Grades 8, 9, 10, 11 12

Credit: 1/2

Prerequisite: None

Manufacturing: Paper to Product

Have you ever wondered if you can create an original idea and see it through to actually making it? In the manner of "Shark Tank," students bring an invention from paper sketch to finished product with a short-run manufacturing option. Follow the process from brainstorming and research exercises, to rapid-prototyping, testing and planning. Learn about sustainable manufacturing, waste-free factories, feasibility studies, and connect with local manufacturers. Use a wide range of tools including traditional woodworking machines, hand-tools, 3D printers, and laser cutters. Understand the ways inventors and product designers express their ideas in sketch and 3D form. Explore the world of CAD and CAM. Option to become certified on McQuaid's CNC router and mill.

Intended for: Students in Grades 9, 10, 11 12

Credit: 1

Prerequisite: Introduction to Makerspace or instructor approval

THE MIDDLE SCHOOL PROGRAM

The McQuaid Jesuit Middle School provides a strong Jesuit education to our six, seventh, and eighth grade students. Course requirements for the middle school years include the following:

	6th Grade	7th Grade	8th Grade
Computer Science	N/A	Computer Technology 7	Computer Technology 8
English	ELA 6 Literature 6	English 7 Language Seminar 7	English 8
Foreign Language	N/A	N/A	Language Level 1
Mathematics*	Mathematics 6	Mathematics 7	Pre-Algebra
Physical Education	PE 6	PE 7	PE 8 & Health 8
Science*	Science 6	Science 7	CPS or CPS Advanced
Social Studies	Social Studies 6	Social Studies 7	Social Studies 8
Theology	Theology 6	Theology 7	Theology 8
Elective	Fine Arts	Fine Arts	Fine Arts Computer Science

*Acceleration/advancement in math and science is available for students who qualify.

COMPUTER SCIENCE

Computer Technology 7

Students will be oriented to the Schoology learning management system as well as their Google and McQuaid network accounts. Computer aided design concepts will be a major component of the course with 3D modeling. Students will also be introduced to selected office/productivity software. Keyboarding software will be used as well to guide students toward mastery. This course features a "hands-on" approach to learning with some unit testing and little home study requirements. For most students, it is an enjoyable and useful component of the middle school program.

Intended for: Students in Grades 7

Credit: 1/2 MS

Prerequisites: None

Computer Technology 8

Students will be oriented to the Schoology learning management system as well as their Google and McQuaid network accounts. Computer game design concepts will be studied, which will require that students examine how they organize their thoughts to solve problems. Students will continue to improve their skills in office/productivity software as well. This course features a "hands-on" approach to learning with some unit testing and little home study requirements. For most students, it is an enjoyable and useful component of the middle school program.

Intended for: Students in Grades 8

Credit: 1/2 MS

Prerequisites: None

Animations

This course teaches students how to make stand-alone and Web animations using Animate. Students will create animations, navigation buttons, and interactive menus. During this course, students will progress from creating simple animations to developing sophisticated presentations and movies. Students with a strong work ethic and problem-solving skills and the ability to understand and follow directions will excel in this course. Besides preparation for unit tests, this course requires very little homework for subject mastery. Since many animations are embedded within Web pages, this course's subject material is complementary to concepts taught in the Web Publishing course. Textbook provided.

Intended for: Students in Grades 8, 9, 10, 11, 12

Credit: 1/2 HS

Prerequisites: None

Architectural Design and Drafting

The focus of this half-credit class is learning the fundamentals of AutoCAD software. AutoCAD is the industry standard program for computer-aided drafting (CAD). Students will master concepts and techniques for computer aided, 2-dimensional design and drafting. Since the course will primarily use examples and projects such as floor plans, elevations, lots, etc., students will gain knowledge concerning principles and concepts of architecture. Students will also be introduced to 3-dimensional design concepts.

Intended for: Students in Grades 8, 9, 10, 11, 12

Credit: 1/2 HS

Prerequisite: None

Image Editing with Adobe Photoshop

Learning to create and manipulate images using Adobe Photoshop is the focus of this course. Students modify existing images as well as create original work using multiple rendering tools. Students will also learn how to edit, retouch, and enhance photographic digital images. This course utilizes a "learning through hands-on lab work" approach, which requires a student to possess good work habits, direction following and persistence, but requires very little outside of class work in order to achieve subject mastery. Material covered in this course is complementary to the animations, and Web Publishing courses offered by the department. Textbook provided.

Intended for: Students in Grades 8, 9, 10, 11, 12

Credit: 1/2 HS

Prerequisites: None

Introduction to MakerSpace

The makerspace philosophy is based in invention, problem-solving, the design/engineering loop, upcycling, repurposing and micro-manufacturing. Students will gain CAD experience within the Autodesk suite, and also gain practice designing on paper, and building rapid prototypes. 3D printing will be one central part of this course, but exposure to woodworking, basic tool usage, electric and programmable circuits, and independent troubleshooting will be regular features. Following Intro to Makerspace, a student should be more fluent in CAD and CAM, but more importantly should keep returning to the STEM Lab throughout their McQuaid career, to safely take advantage of the tools, materials and know-how available to them for projects and skill development. Start your creative journey from design to production in our makerspace.

Intended for: Students in Grades 8, 9

Credit: 1

Prerequisites: None

Vex Robotics

This half-credit course offered in the fall semester joins together students in small teams to design and construct a competition robot. As a team, students will work on constructing the game field, designing and constructing the robot, programming, and operating/testing robot functionality. Students will be required to participate in a robotics tournament that typically takes place on a weekend (Dec.-Jan. timeframe). This course is designed for students who have always wanted to participate on the robotics team, but could not due to other time commitments. Students will gain experience in building, designing, and block-coding and must have a willingness to be part of a team over a long period of time, with potential work outside of scheduled class time.

Intended for: Students in Grades 8, 9, 10, 11 12

Credit: 1/2

Prerequisite: None

Web Publishing

This half-credit course provides students with an opportunity to learn more about how the Internet works and the field of web publishing. Topics include creating HTML documents and CSS stylesheets, embedding images and media with webpages and using JavaScript to enhance web content. It is taught with a hands-on, active learning approach as students create both structured and original content. As a lab course, it requires minimal out-of-class work with the exception of occasional unit test preparation. This is a smart, sensible elective for a student who wants to explore the dynamic world of web publishing. Textbook provided.

Intended for: Students in Grades 8, 9, 10, 11, 12

Credit: 1/2 HS

Prerequisites: None

ENGLISH

English at McQuaid Jesuit is skills-based: reading, writing, speaking and critical thinking. Literature is the basis for building these skills. Introducing students to literary analysis, sharpening critical-thinking skills, and practicing speaking and writing skills are our primary goals. We explore writing techniques and introduce and practice virtually all types of writing. Our work will take three general forms: literature, vocabulary and grammar. The McQuaid tradition of extensive novel reading and intensive study of literary genres is initiated at this level. Our literary studies focus particularly on the short story, poetry, the novel, mythology and medieval literature.

ELA 6

In the 6th grade English Language Arts course students will be challenged to increase their knowledge of English grammar and to write more effectively and confidently. Through their experiences in the course, students will appreciate and understand the necessity of using proper grammar and its important role in communication. This course also provides a solid grammar foundation for students to build on as they begin taking foreign languages in the years to come. Students will also work to increase vocabulary both in writing and speaking and will develop stronger public speaking skills.

Intended for: Students in Grade 6

Credit: 1 MS

Prerequisites: None

Literature 6

The 6th grade Literature course is designed to foster each student's love of reading and writing. The Literature course's strong emphasis on critical thinking and increasing reading comprehension and study skills prepares students for the rigor of the English courses they will take as they advance at McQuaid Jesuit. Students will have the opportunity to read and respond to texts from a variety of genres and will comfortably draw conclusions, compare and contrast, make predictions, make inferences, and write summaries. Students will understand the drafting and revision process and will also become more comfortable with public speaking and making formal presentations.

Intended for: Students in Grade 6

Credit: 1 MS

Prerequisites: None

English 7

This course seeks to strengthen and expand students' skills in reading comprehension, writing, critical thinking, and speaking. Interpretation of literary texts will gain sophistication as students become trained in analysis of elements such as plot, setting, character development, and themes. Moreover, students will determine how an author's craft affects implicit meanings of a work. Students will also learn to construct well-reasoned arguments that are focused by a thesis statement and supported by relevant textual evidence, while working towards proficiency in grammatical and mechanical conventions of Standard American English. Vocabulary acquisition will continue through the Membean vocabulary program.

Intended for: Students in Grade 7

Credit: 1 MS

Prerequisites: Literature 6

Language Seminar 7

All seventh-graders are required to take Language Seminar 7, a course designed to strengthen students' literacy and communication skills in English as well as prepare them for high school foreign language study. Students will learn how to read both fictional and nonfictional texts analytically to maximize comprehension, and they will produce their own creative writing in a number of modes (narrative, expository, persuasive, etc.) as a means to explore foundational concepts in English grammar and mechanics. Also included in the course is a brief overview of the foreign language options offered to students beginning in 8th grade, during which students will engage in basic exploration of a new language, including vocabulary, grammatical structures, and cultural backgrounds.

Intended for: Students in Grade 7

Credit: 1 MS

Prerequisites: None

English 8

In the broadest sense, English 8 is a course in writing and thinking. Honing literary analysis skills, sharpening critical thinking skills, and drawing insights about literature and language are our most essential goals. Written expression is the key to meeting these objectives. Our work will move through a number of areas of study and skill development—literary comprehension and interpretation; vocabulary acquisition; and mechanics, usage, and grammar. The course is the natural follow-up to the English 7 course. The Elements of Literature book is the third course of the text used in the 7th grade year. Similar modes of evaluation such as portfolio writing assignments also continue this year, with more sophisticated critical analysis, dialectical challenges, and rhetorical studies.

Intended for: Students in Grade 8

Credit: 1 MS

Prerequisites: English 7

FOREIGN LANGUAGE

Foreign Language Level 1

Eighth-graders begin the actual first year of the three-year sequence, selecting French 1, German 1, Italian 1, Latin 1, or Spanish 1. Level I modern foreign language begins the comprehensive study of the target language. Students will attain an acceptable degree of proficiency in the four skill areas of listening, speaking, reading and writing through the emphasis of active communication. Vocabulary and grammatical structures are presented in dialogues, readings and practiced in oral and written drills. These are chosen for their usefulness in everyday conversation, while dialogues prepare students to communicate topics of interest to them. Readings include cultural information to give students an understanding and appreciation of the contemporary world of the target language. English is used for grammatical explanations, but the target language is utilized as much as possible. Students are tested using a variety of techniques.

Intended for: Students in Grade 8

Credit: 1 HS

Prerequisites: Language Seminar 7

MATHEMATICS

Mathematics 6

Mathematics 6 focuses on reinforcing and expanding basic skills necessary for a strong foundation in mathematics. In addition, we introduce and intensify the base for the study of four critical areas: (1) connecting ratio and rate to whole number multiplication and division and using concepts of ratio and rate to solve problems; (2) completing understanding of division of fractions and extending the notion of number to the system of rational numbers, which includes negative numbers; (3) writing, interpreting, and using expressions and equations; and (4) developing understanding of statistical thinking.

Intended for: Students in Grade 6

Credit: 1 MS

Prerequisites: None

Mathematics 7

This course is designed to provide a solid computational foundation for future mathematics courses. The topics include operations with decimals, fractions, percents and integers; geometry; as well as an introduction to algebra and graphing linear functions. There is a focus throughout on problem-solving skills. Students will apply mathematical concepts to real-world situations, develop organizational skills and effective study habits, and begin to understand that the “why” and “how” of procedures are more important than just an answer.

Intended for: Students in Grade 7

Credit: 1 MS

Prerequisites: Mathematics 6

Pre-Algebra

Pre-Algebra is the 8th grade mathematics course before students begin their three required secondary-level courses. It is designed to build a solid foundation for students to succeed in these upper-level courses. The topics include solving algebraic problems; simplifying expressions with variables and integers, decimals, and rational numbers; graphing linear equations; polynomials; trigonometry; and surface area. Problem-solving is a focus throughout the course.

Intended for: Students in Grade 8

Credit: 1 MS

Prerequisites: Mathematics 7

Accelerated Algebra 8

Enriched Algebra begins a three- to four-year sequential study of college preparatory mathematics. Students will develop the ability to solve a variety of problems logically and critically. Some of the topics that will be addressed include but are not limited to: introduction to algebra; working with real numbers and polynomials including factoring; solving equations and word problems; applications of fractions; introduction to functions; systems of linear equations; inequalities; rational and irrational numbers; quadratic functions; and graphing.

Intended for: Students in Grade 8

Credit: 1 HS

Prerequisites: Mathematics 7 and department approval

Geometry

This course contains a review of algebra; lines and angles; congruent triangles; geometric proofs; parallel lines, angle sums and quadrilaterals; circles; proportions involving line segments and similar triangles; areas of polygons; regular polygons and the circle; inequalities.

Intended for: Students in Grade 10

Credit: 1 HS

Prerequisites: Algebra or Accelerated Algebra 8

Geometry Advanced

This course covers all content areas and skills of Geometry at a greater depth and speed while also including locus; coordinate geometry; constructions; and solid geometry.

Intended for: Students in Grade 10

Credit: 1 HS

Prerequisites: Final average of 92 in Accelerated Algebra 8 or 95 in Algebra with department approval

PHYSICAL EDUCATION

Health 8

This is a required half year course for all 8th grade students. The purpose of this course is to provide students with the knowledge and skills to build positive coping skills, improve resiliency, and increase protective factors. In partnership with Bivona Child Advocacy Center the MBF Teen Safety Matters program is incorporated into the class. MBF Teen Safety Matters is a comprehensive, evidence-based prevention education program for middle school students. The topics that will be covered throughout the course are digital safety, cyber bullying, digital citizenship, abuse, bullying, mental illness, coping skills, resilience, substance use, refusal skills, self-harm, suicide, nutrition, and infectious diseases.

Intended for: Students in Grade 8

Credit: 1/2 MS

Prerequisites: None

SCIENCE

Science 6

Our Integrated Science course is designed to help students understand the importance of formulating scientific questions and developing the appropriate methodology to answer them. Students will learn how to make a hypothesis, participate in experiments, analyze data, and form conclusions. Students will be introduced to key concepts in both earth and life sciences, namely, the scientific method, the solar system, plate tectonics, earth systems, cell biology, evolution, genetics, plant structure, electromagnetism, mechanical waves, and magnetism. The ultimate goal is for students to appreciate the vast field of science and to develop analytic skills that can be applied to all areas of study.

Intended for: Students in Grade 6

Credit: 1 MS

Prerequisites: None

Science 7

The curriculum for life science is designed to provide a foundation for high school biology. Basic biological principles aimed at understanding the life processes common to all living things are covered. Students will begin by learning about life on the cellular level and proceed through the structure and function of organisms including human systems. Fields of study include cell biology, cell chemistry, genetics, evolution, taxonomy, botany, and human anatomy. This course includes laboratory investigations of life science concepts which utilize abstract and critical thinking, inquiry skills, and scientific reasoning.

Intended for: Students in Grade 7

Credit: 1 MS

Prerequisites: Science 6

Conceptual Physical Science (CPS)

The goal of this course is to give students a solid foundation for the physical science courses that they will be encountering in high school, especially chemistry and physics. Topics include: graphing, scientific notation, Newtonian physics, energy, the atom, the periodic table, chemical bonding, chemical reactions and atomic energy. Classroom work is enhanced by a strong hands-on laboratory component. Students are encouraged to use the scientific method in a cooperative-learning, team environment. Computer technology is incorporated into the course when appropriate.

Intended for: Students in Grades 8

Credit: 1 MS

Co-requisite: Science 7

Conceptual Physical Science Advanced (CPS)

This course covers the same content as Conceptual Physical Science but does so in greater depth and at a faster pace. Topics include: graphing, scientific notation, Newtonian physics, energy, the atom, the periodic table, chemical bonding, chemical reactions and atomic energy. Classroom work is enhanced by a strong hands-on laboratory component. Students are encouraged to use the scientific method in a cooperative-learning, team environment. Computer technology is incorporated into the course when appropriate.

Intended for: Students in Grades 8

Credit: 1 MS

Co-requisite: 95 or higher in Math 7 or completion of Pre-Algebra and department approval

SOCIAL STUDIES

Social Studies 6

Social Studies 6 is designed to provide a foundation for Middle School Social Studies and eventually High School History. Our mission is to develop students that will demonstrate democratic and global citizenship, economic and cultural proficiency, and the principles supporting social justice by becoming informed, life-long learners through literacy-based learning with a research-based foundation. Students will begin by learning the basic core concepts necessary to be successful in a Social Studies course. Students will gain an understanding of the geography, culture, and religions of the Ancient World. In doing so, we will explore the early civilizations of the Ancient Near East, Egypt and Nubia, China, Greeks, Rome, The Byzantine Empire, Islam, Africa and Asia, The Americas, and Europe. Along with the skills of map reading, note-taking, summarizing, unplanned discussion, public speaking, and interpreting resources students will be assessed on homework, in-class assignments, projects, and tests/quizzes. Some additional skills students will develop are organizational skills, effective test-taking strategies and study habits, while developing life skills, character traits, and how to be men for others.

Intended for: Students in Grade 6

Credit: 1 MS

Prerequisites: None

Social Studies 7

Social Studies 7 is a chronologically organized course that covers the history of the United States. This course covers European Exploration to the causes of the Civil War (1600-1850). While major emphasis is given to the most significant political, economic, diplomatic and social developments of the United States, there is also an emphasis on the experience of the common person woven into this narrative. One of the main objectives of the course is to understand the origins and meanings of our nation's founding documents, including the Declaration of Independence, the Constitution and its associated rights of citizenship; with this base, students are in a better position to attain an understanding of where the country has been as a nation in order to create a vision of where it is headed in the future. "You can't be sure of where you are going if you don't know where you have been."

Intended for: Students in Grade 7

Credit: 1 MS

Prerequisites: Social Studies 6

Social Studies 8

Social Studies 8 is a chronologically organized course that covers the history of North America and the United States. This course covers the causes of the Civil War up toward modern times (1850 forward). While major emphasis is given to the most significant political, economic, diplomatic and social developments of the United States, there is also an emphasis on the experience of the common person woven into this narrative. One of the main objectives of this course is to build on the strong base of understanding students have gained in 7th grade about Constitutional rights/ citizenship to more deeply understand how the concept of "all men are created equal" embodied the Declaration of Independence has at pivotal times later created debate, conflict and reform in our society as we have gradually redefined who "we the people" are and what rights we exercise in the ongoing struggle in our nation as we work for greater social justice for all of "we the people." An additional main objective is to understand the historical development of America as a powerful nation in the world and to examine and analyze our growing leadership role in the world over the past century.

Intended for: Students in Grade 8

Credit: 1 MS

Prerequisites: Social Studies 7

THEOLOGY

Theology 6 – Finding Your Faith

The study of Religion is not only essential to the mission and vision of McQuaid Jesuit; it is first and foremost our best approach to forming the whole character of the learner. The flexibility and rigor of the 6th Grade curriculum allows students to challenge preconceived notions, to exceed their geographical and cultural boundaries, and to begin developing a well-formed code of ethics and morality to their lives. The Religious Studies course is specifically designed around an introduction to Judeo-Christianity. Students will delve into Old Testament readings and interpret them according to today's Catholic theology. Specific topics will begin with the story of Creation and how the Catholic interpretation is complementary to the field of Science, and will end with the birth of Jesus Christ and the beginning of Christianity. Students will also develop project work designed to encourage expression and formulation of a system of faith. Class discussions are also a key part of the curriculum, as students will engage with each other in an effort to articulate, foster, and accept personal beliefs, regardless of creed.

Intended for: Students in Grade 6

Credit: 1 MS

Prerequisites: None

Theology 7 - Faith & Covenant: The Life of Jesus and Themes of the Hebrew Bible

This course is devoted to the study of the Bible, including the historical, geographical, literary, and theological aspects. The chief objective is to have our students develop an understanding and appreciation of the faith experiences of Jesus Christ as we learn about the guiding principles of the Ten Commandments, the Beatitudes the Corporal and Spiritual Works of Mercy, Jesus' Law of Love, the Catholic Catechism, and Scripture, and how they are incorporated into our daily lessons. The students will also learn of ways in which the message of Jesus and the Bible itself can be relevant to their own life situation and use that knowledge to enhance their personal faith as they explore what it means to be a moral person in the Catholic Christian context with topics such as the formation of conscience, moral decision making, virtues and vices, sin, and redemption. In addition to learning about the life of Jesus, we will also cover the sequence from Genesis and Exodus through Joshua and Judges. Experiencing the profound and engaging narratives contained in the literature of these books, students will learn about the foundation of God's people from creation to the conquest of Canaan and their eventual defeat and exile in Babylon. Particular emphasis will be given to Biblical law and the implications it has for young men who wish to deepen their Christian faith. Topics such as the suffering of innocents as well as some of the ethical questions which faith can help us to confront successfully will be covered at an age-appropriate level. From the perspective of a general survey, then, this course seeks to introduce all students to learn and understand the life of Jesus as well as the major spiritual truths found in the Old Testament, and to appreciate the variety of ways in which the truths of scripture are relevant to the lives and experiences of young men in the twenty-first century.

Intended for: Students in Grade 7

Credit: 1 MS

Prerequisites: Theology 6

Theology 8 - Jesus Christ & the Church

The goal of this course is for each student to become a better person. Jesus Christ is our model and our guide. Students will progress on their journey to become more intellectually competent, open to growth, religious, loving, and committed to justice. Scripture, theological reflection, prayer, and social analysis, and Church teaching will also be a central part of this course.

Intended for: Students in Grade 8

Credit: 1 MS

Prerequisites: Theology 7

FINE ARTS

Visual Arts

Important Note: *It is recommended but not required that these two full-year middle school art courses be sequenced. Students may take Art 6/7 only once.*

Art 6/7

Students will be actively engaged in the creative art making process using the art elements: color, shape, value, form, line, space, and texture. Students will maintain a sketchbook to practice their drawing skills both inside and outside of class. Class presentations and discussions about art create connections and appreciation. Media such as pencil, colored pencil, marker, paint, collage, printmaking, and clay will be used, preparing students for the high school curriculum.

Intended for: Students in Grade 6, 7

Credit: 1 MS

Prerequisites: None

Art 8

Students will use the creative integration of the art elements by learning how they combine into the art principles of design: movement, contrast, variety, rhythm, balance, harmony, pattern, unity, emphasis, and proportion, to create original works of art. Students will learn to make connections by responding to historical and contemporary art during class critiques as well as to their own finished pieces. Sketchbooks will be used to practice drawing skills and to journal about the art making processes. A variety of media such as pencil, colored pencil, pastel, paint, collage, printmaking, and clay will be used, preparing students for the high school art curriculum.

Intended for: Students in Grade 8

Credit: 1 MS

Prerequisites: None

Music

Music 6/7

Students will be introduced to basic musical knowledge and skills. Aspects of the class will include history of music, multicultural music, and hands-on experiences in studying, listening, discussing, composing, and performing music. This course is also an introduction to music courses offered at the high school level.

Intended for: Students in Grades 6, 7

Credit: 1 MS

Prerequisites: None

Middle School Chorus

The middle school chorus is open to all students in grades 7 and 8 who sing in an ensemble. Students will sing a variety of choral repertoire appropriate to the level of the group. Students wishing to play piano during rehearsals or the concert are encouraged to see the chorus director prior to signing up since space is limited for this. Vocal lessons taken either privately or at McQuaid Jesuit are required for completion of this course. Students will perform frequently throughout the year in school and community settings.

Intended for: Students in Grades 6, 7, 8

Credit: 1 MS

Prerequisites: None

Beginning Ensemble

This ensemble is for any student interested in learning to play an instrument or is still a beginning instrumentalist. Students will learn fundamental skills in playing an instrument for band. Students will perform music in a variety of styles. Instrumental lessons taken either privately or at McQuaid are required for this course.

Intended for: Students at a beginner instrumental playing level

Credit: 1 MS

Prerequisites: Teacher placement evaluation or department approval

Concert Band

The Concert Band is open to all student musicians at an intermediate level playing woodwind, brass, or percussion instruments only. Students playing guitar or piano may be interested in General Music or Middle School Chorus. This course will cover wide arrangements of musical styles and genres that will be challenging to the level of the students. Instrumental lessons taken either privately or at McQuaid are required for completion of this course. Students will perform frequently throughout the year in school and community settings.

Intended for: Students at an intermediate performance level

Credit: 1 MS

Prerequisites: Teacher placement evaluation or department approval

Orchestra

This course is a full credit class and seeks to develop technical proficiency, musicianship, and musical leadership through the performance of string orchestra repertoire. Students will perform orchestral repertoire frequently throughout the year in school and community settings. Individual lessons taken either privately or at McQuaid are required for completion of this course. Orchestra is open to musicians playing violin, viola, cello, and upright bass (not electric bass).

Intended for: Students in grades 6, 7, 8, 9, 10, 11, 12

Credit: 1 MS

Prerequisite: Teacher placement evaluation

Drama

Drama 6/7/8

Drama is intended as an overview to dramatic and theatrical arts. Students are introduced to basic theatrical, stage and film terminology as well as the origins of Western. Basic elements and principles of theatrical performance and technologies will be explored through group projects, acting, and hands on activities.

Intended for: Students in Grades 6, 7, 8

Credit: 1 MS

Prerequisites: None

1/30/23